

REMARKS

Applicants appreciate the Examiner's thorough consideration provided the present application. Claims 4-11 are now present in the application. Claim 4 is independent. Reconsideration of this application is respectfully requested.

Claim Rejections Under 35 U.S.C. § 103

Claims 4-11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Applicants' Disclosure, in view of Yates, U.S. Patent No. 6,350,322. This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

With regard to the Examiner's reliance on the Applicants' Disclosure of the present invention, the Examiner relied on FIG. 1 of the Applicants' Disclosure to reject claims 4-11 under 35 U.S.C. § 103(a), which is inappropriate because at the outset, no admission had been made by Applicants that FIG. 1 qualifies as statutory prior art usable in a rejection of the claims of the present invention. Instead, Applicants use FIG. 1 as the related art to illustrate Applicants' improvement. At least for this reason, Applicants respectfully request that this rejection be withdrawn.

In addition, the Examiner has correctly acknowledged that the Applicants' Disclosure fails to teach "introducing a pressurized gas into the vessel from above the objects to force the etching solution out of the vessel from below the objects" as recited in claim 4. However, the

Examiner alleged that Yates' teachings in FIG. 5 cure the deficiencies of the Applicants' Disclosure. Applicants respectfully disagree.

In particular, Yates discloses that after the semiconductor structure 56 is sufficiently rinsed with the DI water, the influent DI water is shut off and the IPA-laden nitrogen gas is fed through the vapor-gas inlet 52 (see col. 8, lines 34-39). Then the fail-shut valve 34 is opened to drain the DI water (see col. 8, lines 43-47) and the pressure of influent IPA-laden nitrogen gas that is fed through vapor-gas inlet 52 displaces all DI water contained within cascade rinser 42 (see col. 8, lines 39-42). In other words, Yates merely discloses that the DI water is drained from the fail-shut valve 34 from below the semiconductor structure 56. Therefore, Yates fails to teach "introducing a pressurized gas into the vessel from above the objects to force the etching solution out of the vessel from below the objects" as recited in claim 4.

Unlike what the Examiner suggested in the instant Office Action, the IPA-laden nitrogen gas fed through the vapor-gas inlet 52 does not drain the DI water from the right exit in FIG. 5. In fact, the IPA-laden nitrogen gas cannot drain the DI water from the right exit in FIG. 5. As shown in FIG. 5 of Yates, since the right exit F is always open for the overflowed DI water inputted from the bottom of the overflow rinser 40, due to the lower pressure at the right exit F, the IPA-laden nitrogen gas will always flow toward the right exit F before the DI water is drained from the fail-shut valve 34. Therefore, the IPA-laden nitrogen gas cannot drain the DI water from the right exit in FIG. 5.

Furthermore, as mentioned, it is the DI water, not the etching solution as recited in claim 4, in Yates' overflow rinser 40. Therefore, introducing the IPA-laden nitrogen gas into Yates' overflow rinser 40 with DI water also fails to teach "introducing a pressurized gas into the vessel

from above the objects to force the etching solution out of the vessel from below the objects” as recited in claim 4.

Accordingly, neither the Applicants’ Disclosure nor Yates individually or in combination teaches or suggests the limitations of independent claim 4. Therefore, Applicants respectfully submit that independent claim 4 clearly defines over the teachings of the Applicants’ Disclosure and Yates.

In addition, claims 5-11 depend, either directly or indirectly, from independent claim 4, and are therefore allowable based on their respective dependence from independent claim 4, which is believed to be allowable.

In view of the above remarks, Applicants respectfully submit that claims 4-11 clearly define the present invention over the references relied on by the Examiner. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103 are respectfully requested.

CONCLUSION

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently pending rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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